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SCHOOL DISTRICT PLANNING OF CURRICULUM IMPLEMENTATION

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Foreword

The Educational Program Implementation Branch is committed to assisting educators in their efforts to effectively manage educational change. In an effort to articulate some common understandings about issues important to successful implementation, the Branch has sponsored the development of this handbook.

This handbook is a collection of some of the most widely accepted research and practice in the area of planning and support for the change process. Although most of the material focusses on curriculum innovation, the principles can be extended to assist in the implementation of most types of educational change.

The authors, Dr. Alan Taylor and Dr. Walt Werner, have pooled their expertise to produce a useful document that is built on British Columbia implementation experience and current theory. The Ministry is grateful for their work.

This handbook is specifically designed for use by school district administrators. There is no doubt that school administrators, teachers, curriculum developers, and the various stakeholder groups will find the document useful, particularly in collaborative efforts of planning for program change.

Becky Matthews
Director
Educational Progam Implementation Branch

Acknowledgments

Some of the ideas contained in this handbook came from various sources. One source included curriculum implementation plans developed over the past decade within school districts across British Columbia. Other sources were selected writings of Beverly Buchanan (School District No. 34), Michael Fullan (The University of Toronto), and Kenneth Leithwood (The Ontario Institute for Studies in Education).

Becky Matthews and Mary Fedorchuk of the Educational Program Implementation Branch (Ministry of Education) guided the project from initiation through to completion. Members of the 1988/1989 Advisory committee of the Educational Program Implementation Branch provided information and criticism that was useful to the writing of this document.

Parts of this handbook were taken from several Ministry publications on program implementation. (See the Reference section at the end of this document.)

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Introduction

Curriculum implementation is of ongoing concern to district level administrators. Each year administrators deal with many curriculum changes -- whether initiated at the Ministry or within the district -- that require planning and coordination. The nature, extent, and implications of these changes often vary greatly. This diversity means that there is no single approach that can be recommended as suitable for planning and facilitating implementation. Incrementalism and messiness often characterize change more than certainty and predictability.

The purpose of this handbook is to summarize some of the general factors that can be taken into account when implementation is planned for a district. A **district perspective** on planning is taken rather than a school perspective. The discussion is designed to facilitate the work of district administrators and committees, whose task it is to initiate and oversee curriculum implementation in schools. In cases where there is a district advisory committee for curriculum implementation, this committee is the most likely vehicle for planning.

The limitations of this handbook are due to a conscious choice to keep the book short and to focus on planning from the perspective of district staff. The following limitations should, therefore, be kept in mind:

- This handbook is not intended to be a step-by-step guide for planning. Rather, it is meant to be used as an example of the type of factors to be considered by district staff. There is no specific set of steps that will ensure implementation. However, plans that take into account these factors and the impact of their application in concert, will increase the likelihood of educational change. Consequently, rather than outline a single planning strategy, this handbook presents a number of factors to be considered as a starting point for those who are responsible for planning implementation.

- This handbook is not a review of research findings and issues, although the factors that are discussed are based upon the broader literature and the experience of many district administrators with planning implementation. The presentation is general in order to be relevant to a range of curricula, district contexts, and points of view on implementation.

- The discussion of planning assumes that there are personnel with resources at the district level who plan implementation and are available to work in schools. Such an environment exists on a permanent basis in most large and medium-sized districts. Other mechanisms such as twinning or temporary staff allocations might be used in smaller districts.

- The concerns and priorities that people have about implementation will be somewhat different at the school level than at the district level. Although this handbook has a district bias, school personnel will find parts of it helpful as a guide to their own planning.

Curriculum Implementation

This first section outlines a perspective on curriculum implementation as a basis for the discussion in the next section of those factors that could be considered by district planners.

What is Implementation?

Implementation refers to the **actual use** of a curriculum within classrooms; how school personnel interpret a new curriculum; and, the things they do to put it into practice.

District-wide efforts at curriculum adoption, dissemination, and professional development are not to be equated with implementation. Adoption refers to the decision by the district or school to begin implementation of a curriculum at a particular time. This establishment of timelines precedes implementation. Dissemination includes the delivery of the curriculum and materials (e.g., textbooks) to the relevant teachers at the appropriate time. Professional development activities -- including inservice education -- are organized to support the teacher in his or her implementation work. These efforts at adoption, dissemination, and professional development tell us very little about the extent to which teachers are using the new curriculum, how they are using it, for what reasons, and with what effects.

The ultimate goal of curriculum implementation is the improvement of the delivery of instruction and the facilitation of student learning. The focal point is on the student, while the key agents in implementation are the teachers. Teachers determine the extent to which a change actually takes place by what they do or do not do in their classrooms. No two teachers will implement in exactly the same way. They will modify the curriculum in light of their individual subject matter perspectives, beliefs concerning how children learn best, perceptions about particular student needs, and many other classroom-related factors. To be insensitive to the views of teachers about implementation and disrespectful of the complexities of their role is to court disappointment. Successful implementation occurs only when teachers have the opportunity to study the new curriculum, understand what changes are involved, discuss the implications with colleagues, and adapt the new ideas to suit local school conditions and the needs of different kinds of students.

Accepting the teacher's role as primary in implementation has important consequences for how district administrators and committees do their planning. Their role is to be supportive of the teacher's role. This means that planners need more than a managerial perspective on establishing timelines, allocating resources, and monitoring implementation. During planning, the teacher's role has to be kept in focus. For example, planners at the district level need to ask: What are the implications of this curriculum for the teacher's time, classroom organization, community-

school relations, or professional development needs? What kinds of support do school personnel require, when, and to what extent? What difficulties and successes are teachers experiencing with the curriculum? Through questions such as these, planners can seek information so that implementation plans are kept relevant and realistic. District personnel are the ones who can make certain that resources such as time and professional development opportunities are available to teachers as they translate curriculum into student learning. The outcome of supportive, district-wide planning is more successful implementation.

The tasks of planning are somewhat different depending upon whether planning occurs at the level of the district or school. Individuals at both levels have a responsibility for planning. However, because implementation is primarily defined by what the teacher does in his or her classroom, it is up to school staffs to plan how best to use their classroom resources to affect student learning. The purpose of district planning is to support the school's planning and to anticipate the needs of teachers. Planning at these two levels is, therefore, mutually supportive.

What factors affect implementation?

If we were to analyze reasons why some implementations work better than others, several factors might appear to be crucial. For example, implementation requires planning at both the district and school, adequate resources, and a willingness to change by district and school participants. Each of these, however, is affected by a number of factors at various levels of the system. Throughout British Columbia, one of the best known lists of factors affecting implementation comes from the work of Fullan and Leithwood (1982). Their eleven factors are listed in Table 1.

Table 1
Factors Affecting Implementation

A Attributes of the Innovation	B School District Characteristics	C School Characteristics	D External Characteristics
▫ Clarity of goals ▫ Complexity ▫ Quality of materials	▫ Decision-making about change priorites ▫ Leadership training ▫ In-service education and orientation ▫ Time-line and information system	▫ The role of the principal ▫ Teacher-teacher collegiality	▫ Role of the ministry ▫ Access to assistance/ resources

This list of very general factors is based upon research literature on curriculum implementation from across North America. Anyone not acquainted with these factors may wish to read Fullan (1982: 54-80) or Fullan and Park (1981) as background. Interaction among these factors adds to the complexity of change, so it is important that as many of these factors as possible are judged to be supportive of implementation.

Within the experience of district administrators across British Columbia, a number of more specific factors are recognized as being related to successful implementation planning. Buchanan (1980b, 54-55) discussed many of the factors that are considered by district planners. Her list is summarized in Table 2.

Table 2
Factors to Consider in Planning

- Teachers and administrators are involved in developing and monitoring the implementation plan.
- Implementation strategies are adapted to the nature of the program and the school setting.
- Trustees and the public understand the program change and its implications.
- Priority and broad-based support are given to program implementation.
- The program is phased in, with concern given to pacing and availability of essential resources.
- Ongoing inservice, relevant practical advice, and classroom assistance from district staff are available for teachers until implementation has been achieved.
- Principals are given assistance in planning for implementation with their staffs.
- Outside resources are called on when specific needs cannot be met at the local level.
- Teachers are consulted on the selection of learning resources.
- Consultation takes place regarding school plans and processes for implementation.
- Teachers have the opportunity to be involved in the adaptation of the program and in developing local programs.
- Tests are used as resources for learning.
- District leaders are knowledgeable about strategies for program implementation.
- Expectations are made clear to district and school staffs.
- Feedback regarding the program and its implementation is given to appropriate personnel so that modifications and interventions can be planned.
- Time for planning and additional resources are provided until the new program becomes part of the educational repertoire at the classroom level.
- District staff demonstrates commitment to, and active support for, implementation of the program.
- Implementation plans and activities are adapted to the expressed needs of principals and teachers as they attempt to translate the program into practice.
- Appropriate positive recognition is given to school staffs and individuals in the various stages of implementation.

This list of factors summarizes some of the collective experiences of district administrators in this province and is consistent with broader principles of implementation (Werner, 1982). The "Developing a District Plan" section of this handbook highlights more specifically some of these and other factors for implementation planning.

What are the stages of implementation?

District and Ministry personnel in British Columbia often talk about implementation in terms of four stages. The first stage involves planning, which deals with the purpose and nature of the change, the allocation of appropriate resources, and the establishment of timelines. At the second, or orientation stage, all attributes of the change are shared with those who are responsible for actual implementation. During this stage, inservice needs are determined, and a plan for supporting implementation is finalized. The third phase is that of inservice. At this point, a series of inservice sessions is co-ordinated and delivered in a variety of ways to meet the needs of teachers and principals. Follow up is the fourth stage, during which information is collected and analyzed to determine the effectiveness of the change and to gain direction for further allocation of resources or modifications of approach. These four stages are not discrete.

Table 3
Implementation Stages and Tasks

	Program Implementation Branch	District	School
1. Planning	▫ Planning committee established ▫ Relevant research reviewed ▫ Curriculum changes clarified ▫ Resource needs determined ▫ Timelines determined ▫ Draft of Curriculum Guides circulated ▫ Network established	▫ Planning committee established ▫ Extent and nature of change clarified ▫ Implementation plan developed ▫ Resource needs identified ▫ Timeline developed ▫ Budget established	▫ Curriculum change tied to school's annual objectives ▫ School priorities determined

Continued on next page

Table 3 Continued

	Program Implementation Branch	District	School
2. Orientation	▫ Resource personnel trained ▫ Regional meetings planned and held ▫ Summer institutes planned and held ▫ Network operational ▫ Teacher concerns reviewed	▫ Communication established ▫ Orientation sessions held for teachers and principals ▫ Inservice needs determined ▫ School contacts identified ▫ Budget reviewed	▫ Orientation sessions attended by teachers and principals ▫ Teacher-teacher and teacher-principal planning for implementation ▫ Resource needs identified ▫ Teacher concerns identified
3. Inservice	▫ Contracts with professional groups ▫ Requests from districts organized through network ▫ Clearing house for inservice requests	▫ School contacts identified ▫ Delivery model(s) in place ▫ Inservice resources identified (Ministry and other) ▫ People trained in workshop strategies ▫ Inservice developed, provided, and assessed	▫ Inservice needs scheduled on an incremental basis ▫ Teacher concerns reviewed
4. Follow up and Monitoring	▫ Formative implementation assessment undertaken ▫ Clearing house function for sharing of locally developed resources	▫ Program review conducted ▫ Review of resource allocations ▫ Provision of follow-up support	▫ Changes implemented ▫ Effectiveness of change assessed on an ongoing basis ▫ Procedures in place to institution-alize the program

All four stages have implications for each level of the educational system in the province. In Table 3 (beginning on page 11), some of the tasks typically dealt with by the Ministry, the district, and the school are listed for each stage. This list of tasks suggests the kinds of things that could be done, and is not meant to delineate the roles of people at these various levels. There is overlap of tasks across the levels.

Although Table 3 identifies some of the tasks to be dealt with at three levels, the discussion in this handbook is limited to planning at the district level only. The following section outlines some of the factors that district planners may need to consider when devising support that teachers would find helpful in their implementation work.

Developing a District Plan

Curriculum implementation across a school district is often a complex undertaking that requires co-ordination and planning. The reasons for this complexity are numerous. For example, the stability of existing programs in schools may be threatened by the proposed change, and uncertainties about the meaning of the change may be raised by teachers, parents, and administrators. These and many other difficulties can become obstacles to implementation if strategies are not devised to deal with them.

Developing a district plan to guide and support the implementation of a new curriculum is one way to recognize potential problems and to initiate appropriate action. A plan helps to ensure that people's concerns are systematically anticipated and their needs addressed. Without a plan, implementation can become a haphazard endeavour, result in uneven student learning outcomes, and make the school's job more difficult. Implementation of change does not "just happen" without careful and ongoing planning at the district and at each school.

There is no formula for planning implementation. The tasks that should be considered depend upon the nature of the new curriculum and many context variables within the district. Specific considerations within planning depend upon how different the new curriculum is from the old one, upon available resources, the strengths of school personnel, student needs, other program priorities, and of course, district politics. Thus, no two plans will be the same across districts. Plans continually change as staff anticipate and deal with the realities of implementation.

Planners need to be cognizant of those factors that can affect implementation in a positive or negative way. From both the literature on implementation and the experiences of district personnel in this province, a number of general factors can be identified as important. These factors help one to see current strengths within the district, upon which a plan can be built. They also help to define potential obstacles to implementation that can be minimized through appropriate strategies.

The following list of eleven factors is not meant to be exhaustive, nor are the factors mutually exclusive. There is considerable overlap, and other factors may also be important to consider, depending upon the particular curriculum and the district's context. There is also no intended sequence to the order of the factors. It is important to note that these factors are discussed as district rather than school factors. School-based planning would need to focus these factors somewhat differently and to consider others. After a brief description of each factor, some questions are raised for district planners. How, and to what extent, the questions are considered during planning depends upon the judgment of those preparing the plan.

1. Curriculum clarity

It is essential that the nature and purpose of the change are explicit. Implementation often fails because the intentions of the curriculum are not clearly stated or understood. The curriculum may be confusing, or district and school staff may not have seriously studied the meaning of the change. In any case, without explicitly defining the difference between the new curriculum and the old, it is impossible to know the degree of the change expected and the extent of the implementation problem. The difference between the old and the new may be quite large and complex, and require careful planning in order to phase the change in over time. On the other hand, the change may be small and easily implemented.

Successful implementation depends upon the changes within the new curriculum being clear and realistic. Compared to the old, a new curriculum may present changes in one or more of the following five areas:

- goals or objectives (Intended learning outcomes may be different from the former curriculum.)
- resources (new materials such as books and hardware)
- teaching and learning strategies (new student activities, teacher strategies, and administrator behaviour to facilitate student learning)
- content (new subject matter to be taught and learned)
- assumptions (new beliefs about teaching and learning).

The change may be multi-dimensional, and there may be ambiguities in the curriculum that need clarification. Part of the planning process is the clarification of the new goals, roles, resources, and beliefs that are proposed or implied in the curriculum. The degree of newness, of course, is relative to the teacher who will be using the curriculum.

Once changes are identified, planners can than consider the implications of the changes for professional development needs, resource allocation, timelines, and support roles. It is always in these implications that the complexity of any change resides. Some changes are complex because they imply the development of new materials, the learning of new teaching strategies and subject matter, and the modification of beliefs that one formerly took for granted. Any new curriculum may imply possible role changes for not only students and teachers, but also for district personnel in how they support the teacher's work.

When planning implementation, consider the following questions:

- What is actually new in this curriculum? How does it differ from our current practice? If this curriculum were in use, what would teachers and students actually be doing? Do these change expectations build upon current teacher strengths, experiences, and training?
- Are there any ambiguities in the curriculum that we need to clarify?

- How are the various change expectations to be made clear to the various participants?

- What are the implications of the differences between the old and new curricula for professional development (What do teachers need to learn?), resources (What personnel and financial resources are necessary to support the change?), district priorities and the development of classroom materials (Is the development of learning materials required?)? What roles are implied for students, teachers, and district personnel?

- Are these implications realistic in light of our district priorities, support resources, student needs, community concerns, and teacher strengths? Are there too many change expectations in this curriculum? What aspects of the curriculum may need to be modified?

- What opportunities can be made available for district staff to clarify the meaning of the curriculum changes for their roles?

2. District climate

Although "climate" is a vague term, it can be useful to planners when they are identifying group attitudes and relationships that may present problems to implementation. In the context of implementation, the term refers to the attitudes that various stakeholder groups such as teachers, administrators, parents, and trustees have toward curriculum change (e.g., their beliefs and expectations concerning whether the change will result in educational benefits, their level of motivation to engage in the change, and their degree of trust in one another or in the curriculum's major advocates). The predisposition or willingness of people to seriously consider changing is also influenced by their perceptions about how well past implementations were planned and supported by the district office, cynicism concerning the adequacy of promised resources and other forms of support, and beliefs that communication and decision making have or have not been open and honest.

Since any change brings uncertainty and fears, even the announcement of a new curriculum can create an unfavourable climate in which minor irritants can lead to unexpected negative results. One of the ways to deal with a negative climate is to check the extent to which the other ten factors discussed in this section are addressed during the planning process. This will ensure that the implementation effort does not turn into another example of a poorly managed change.

Questions to consider might include:

- What aspects of the district's current climate may positively or negatively affect implementation? Is the district's history (or recent attempts) of change likely to have an impact on the proposed implementation? What are the relations among the significant stakeholder groups?

- What are the implications of the district's climate for how this implementation should be planned and supported?

3. Involvement and communication

Change involves individuals in different ways at different levels of the education system. Consequently, expectations and responsibilities may need to be clearly defined for all participants. For example, because change is often initiated by the Ministry or the district, planners at these levels have a responsibility to provide the support necessary for implementation. On the other hand, school administrators and department heads have the responsibility to make sure that this support facilitates the teacher's work. Clarification of roles and responsibilities results in leadership and organization within the district and school that are conducive to positive change.

Implementation requires the involvement and support of various people and groups within the district. Securing their involvement at the right time is an important consideration. When selecting a committee to develop the district's plan, both political and educational criteria should be used. This will ensure the quality of the plan and its acceptability. If possible, it may also be beneficial to involve a developer of the curriculum directly in planning its implementation.

Besides involvement of stakeholders, implementation is affected by ongoing vertical and horizontal communication in the district. The morale of school staffs can be negatively impacted if they feel that the change was "sprung" on them without adequate warning or explanation, if they are confused about the rationale for the change or the intentions of district staff, or if they do not have periodic opportunities to discuss their difficulties and successes with the implementation. Ongoing interaction among teachers, principals, district staff, and community members is not a luxury. Discussion is important to dealing with change.

Some questions for discussion may include:

- Who should plan the implementation? Do committee members have the relevant subject matter expertise, represent the relevant stakeholder groups, and have some knowledge of implementation research and assessment strategies? Are they perceived by teachers to be credible?

- Is there open and ongoing communication among the committee and stakeholder groups? Do stakeholders have the opportunity to give suggestions and make their concerns known to the committee? Are those people with relevant expertise consulted by the committee?

- Are the relevant people involved in appropriate ways and at opportune times in facilitating the implementation? Are teachers involved at all stages of the implementation -- planning, orientation, inservice, and follow up?

- Has the rationale for change and its proposed benefits been clearly communicated to school and district staff, trustees, and parents? How is information concerning implementation progress and new decisions systematically distributed throughout the district?

4. Administrative commitment

Senior administrators at the provincial and district levels set the tone for implementation to the extent that they show support for a new curriculum and demonstrate through their planning an understanding of the realities of change. If administrative commitment to a curriculum is seen to be serious (as judged by the amount of time, professional development, and other allotted resources), then school personnel are more likely to become committed to the curriculum and willing to invest in its implementation.

Teachers and principals are put in a difficult position if they do not perceive this commitment on the part of senior administrators. Any change has costs for school staff members in terms of time demands for planning, energy to deal with increased workloads and classroom insecurity, and risk to current programs that are functioning well. To deal with these costs, teachers need to know that administrators will continue to support them over the entire period of implementation.

One signal of inconsistent administrative support is inadequate provision of resources and unrealistic timelines. Teachers may be asked to use a curriculum without the promised student textbooks, appropriate teaching materials, or adequate professional development. Administrators who show a lack of commitment in these and other ways, and who are in a rush to initiate change, may pay the price over the next two or three years in terms of teacher cynicism and uneven implementation.

A number of questions are involved in the consideration of administrative commitment:

- Are all of the district administrators apprised of the implementation plan, and do they support it? If not, how can their support be gained?
- How can district administration show schools that its support is consistent and ongoing throughout the period of implementation? Have appropriate forms of support -- personnel, organization, and material -- been demonstrated?
- How can district administration show schools that it understands some of the realities of change and the difficulties that teachers and principals encounter over the course of implementation? Will senior district administrators attend professional development sessions in order to listen to teachers and understand better some of the problems they are having?

5. Credible advocacy

Successful implementation does not depend upon the source of a new curriculum as much as upon who is perceived to be its advocate(s). Thus, a curriculum may originate from a school, the Ministry, university, district committee, the BCTF, or an external interest group, and the source of the decision to adopt the change may be the district office, the school, or the Ministry. These factors are not by themselves necessarily impediments or inducements to implementation. Regardless of their

source, new curricula require advocates within the school and district. Success of the change may be affected by who is promoting it and by how this individual or group is perceived to be involved in the initial planning and the ongoing support activities.

At the district level, an advocate may be a consultant, helping-teacher, or subject area specialist who is associated with the new curriculum in the eyes of school staffs, and who is responsible for guiding professional development and helping to solve problems as they emerge. This person's (or committee's) persistent advocacy and ability to provide continual leadership and school support is important to implementation. However, caution must be exercised in expecting the success of implementation to depend on the charisma and high profile activities of a committed individual or group. Leadership should be transferred as quickly as possible to schools, where it rightly belongs.

At the school level, the principal must be supportive and involved in some way in the planning and inservice activities, even if he or she is not the primary advocate. The advocate(s) may be a teacher committee, an administrator, a department head, or a teacher. The advocate's role is to encourage teacher understanding and ownership of the curriculum.

At times, there may be external advocates from another district, a university, or the Ministry. Such individuals may be used to advantage in orientation sessions and as advisors if they are supported by strong district advocacy. It is unwise, however, to rely upon the external "expert" as the major advocate because he or she may not be perceived as having a stake in what happens in the district.

The following questions may be useful when considering the nature of advocacy for implementation:

- How will both district and school-based advocates be identified and supported? Is there a need for a consultant or resource team to work with schools?
- Would external advocates sometimes be useful at the beginning or over the course of the implementation? If so, how can the relevance of their work be maximized?

6. Consistent priorities

Priorities need to be established among competing demands if a district is facing several curricula (or other) changes at once. Ensuring that these priorities are realistic and consistently communicated requires co-ordination among district staff who represent different departments and programs. It is better to concentrate on implementing a few things well than to attempt too many changes too soon, thus risking the frustration, apathy, and burn-out of school staffs.

Sometimes a new curriculum implies complex changes for schools. Too many changes may be asked for at once; some changes may present contradictory implications for the school's timetable or use of resources; demands on teacher time may be unrealistic in light of the many other things that also need to be done; and, some of the good things already happening in classrooms may be jeopardized by parts of the new curriculum. At other times, schools may be faced with more than one new curricu-

lum. In such cases, a district plan should clearly set priorities. Within these parameters, schools can make decisions about what curriculum or part(s) of a curriculum to implement first and which can be phased in later. All demands cannot be satisfied concurrently because school personnel do not have unlimited time, energy, and resources.

There are several things to consider when planning priorities. Priority may be given to those changes that allow schools to build on their current program and personnel strengths, and thus capitalize on the good things that they are already doing. Priority could also be given to those curriculum changes for which the required expertise and appropriate physical resources (e.g., library) are readily available, and which best accommodate immediate student needs across the district. And, of course, the time and workload demands of the change upon participants would be considered when setting priorities.

The following questions can be asked:

- What are the curricular and non-curricular changes that are already occurring in the district? Will the new curriculum set up competing demands with other current changes?

- How can the major changes be limited so that no teacher is required to work on many changes at one time? Do we need to prioritize the changes, adjust timelines, and allocate resources accordingly? Can the implementation be sequenced in stages to reduce the effect of overload?

7. Resource allocation

Resources refer to the means that we have at our disposal to facilitate implementation. Financial resources allow schools to have sufficient release time necessary for planning and professional development, whereas personnel resources include those individuals who have the expertise and time necessary to oversee the implementation activities and organize professional development. Material resources are the required textbooks, supplementary materials, AV equipment, and other hardware that support the curriculum. Without adequate resources, implementation flounders and may lead to problems that take months or even years of remedial activities to overcome.

As with many aspects of implementation, the availability and timing of resources need to be carefully considered. It makes little sense to begin implementing a curriculum if schools do not have what they need, or if resources are not available later on to sustain implementation on an ongoing basis. Appropriate resources must be available at the right time.

When considering resources, the following questions can be asked:

- What material, financial, and personnel resources are likely to be required to initiate implementation and to sustain it over time?

- How can scarce resources be allocated equitably across schools?

8. Realistic timelines

Implementation is a time-intensive activity that does not occur overnight. Depending upon the extent of the change and difficulty of the new curriculum, its routine use may only take a few months or it may require two or three years. Even with what initially may seem to be small changes, there are increased demands upon the time that school personnel have for understanding and experimenting with the curriculum, and for planning and organizing lessons. A new curriculum cannot be "added on" to the school's agenda without some adjustments in the allocation and use of time. Disillusionment, burnout, and apathy characterize unrealistically short timelines. In contrast, lack of direction often results from excessively drawn-out schedules.

One of the important lessons learned from past failures is that there has to be a careful scheduling of ongoing teacher support and the provision of resources over a period of time. Prior to actually implementing some curricula, teachers may benefit from having a few months to collaboratively develop classroom materials and strategies. For some curricula, a multi-year timeline may even have to be developed that includes pilot projects, professional development activities, information gathering, and regular communication about progress and changes within the plan.

The following questions may be useful when considering timelines:

- How can the curriculum be phased in so that schools have realistic amounts of time to develop classroom materials, experiment with new teaching activities, and acquire the necessary professional development?
- Is a pilot project advisable?
- Have various stakeholders agreed to the timeline? How will progress be communicated regularly to them?

9. Professional development

Questions and problems arise over the normal course of implementation. The first resource for dealing with school-specific concerns is the staff's collective experience. Another resource is planned professional development.

Probably the most important factor affecting the success of implementation is the nature, quality, and timing of professional development for both principals and teachers. Opportunities that are cumulative and matched to the needs of school personnel are the most beneficial. The one-shot workshop is largely inadequate for dealing with the complexities of a new curriculum. Other avenues for appropriate professional development may include peer observations, short courses, materials development workshops, demonstration lessons, interschool visitations, talk sessions, and individual consultations. Outside "experts" may be brought in to deal with specific topics or problems, and teachers may be sent to conferences to obtain information to share with their colleagues.

Although staff development can take different forms and come from many sources, it should begin before, and continue throughout, implementation. The concerns and needs that teachers have change over the course of implementation. Inservice and other forms of support should, therefore, reflect these changing needs. Much of the teacher criticism regarding the irrelevancy of inservice is related to the timing of its content. Encouraging school staff to identify their professional development needs rather than treating all schools alike, is required if their concerns are to be the focus for planning.

To keep professional development relevant to staffs, various individuals have to be involved in planning. Teachers, principals, subject matter specialists, and, if possible, one of the curriculum developers, bring points of view that can enrich the planning of the purposes, alternative possibilities, and procedures of professional development.

Consider the following questions:

- What kinds of professional development might be appropriate over the course of implementation?
- What are the appropriate sources for professional development? When and how can inservice provided by the Ministry be used?
- Is the professional development ongoing and cumulative?
- What is the optimal timing for each professional development opportunity? Does the content reflect the changing needs and concerns of school staffs?

10. School planning

District level planning is not a substitute for planning at the school level. Both levels of planning should be mutually supportive. The district plan provides the timeline and support framework within which each school staff (or school committee) can plan its own implementation and begin the work of adapting the curriculum to fit their students, teaching strengths, and community context. Planning at the school level attempts, among other things, to:

- define the curriculum change and identify its implications for the school's current programs and personnel.
- clarify the school's goals and priorities, and the roles and responsibilities of teachers and principal, in light of the new curriculum.
- clarify issues raised in the district's orientation and inservice sessions.
- determine facilities, equipment, other resources (e.g., textbooks, A/V equipment) and budget.
- establish school timelines for implementation tasks.
- develop classroom strategies and materials necessary for implementation.

- determine topics and allocate time for school-based inservice or other forms of professional development.

- locate and use resources in neighbouring schools or outside of the district where necessary.

- conduct regular staff meetings to share information and concerns.

In light of the importance of school-based planning, members of a district planning committee might ask themselves: "What can we do to encourage and support school and teacher planning?" It is likely that the district's plan will need to anticipate the tasks, roles, and resources necessary to facilitate school planning. For example, if teachers need to develop student materials or new pedagogical strategies, the district plan should recognize this and provide the necessary means.

The following questions can be considered:

- Has the district plan provided school staffs with the appropriate support for their planning?

- What planning tasks are expected to be dealt with at the school level? Should school staffs develop teaching materials and strategies, and organize their own professional development?

- How are district level and school level planning to be mutually supportive?

11. Regular assessment

Information is required on a regular basis if planners are to understand the problems and successes that school personnel have with implementation and if defensible decisions are to be made about improving support for teachers. Various stakeholders require feedback on what they are doing. Thus, systematic assessment should not be considered only when problems arise or when the implementation is completed. It can be used in the early stages of implementing a new curriculum and then later as new concerns arise. Indeed, ongoing and formative assessment may be an excellent strategy for supporting implementation.

Assessments can be informal at times, both district and/or school-based, and serve a variety of purposes. Despite these variations, though, assessments should be strongly formative by providing relevant information at the right time to those groups that make decisions about improving implementation.

The following questions may be useful when considering assessment:

- What purposes can formative assessment serve in supporting this implementation?

- What information should be collected?

- What procedures can be used to gather relevant information in a systematic manner?

- Are the various stakeholders aware of the purposes of the ongoing assessment, of the procedures used for gathering information, and of the ways in which feedback will occur?

- When will periodic meetings be organized for representatives of teachers, principals, and subject matter specialists to review the information concerning implementation progress and problems?

- What follow-up plans need to be developed?

Summary

District administrators could discuss the preceding eleven factors when planning curriculum implementation. In those districts where an advisory committee is responsible for curriculum implementation, the members of this committee would be the ones to carefully consider such factors. A plan helps to ensure that people's needs associated with the new program are systematically anticipated and addressed. Although plans and planning strategies may vary depending upon the nature of the change and the district's context, these factors could be considered in light of several general questions that guide planning.

1. **WHY** is a change being made?
   - establish a rationale for change

2. **WHAT** is the change to be implemented?
   - identify differences between new curriculum and current program
   - identify the implications of the change for the current practice
   - clarify the goals of the implementation project

3. **HOW** will the change be implemented?
   - determine tasks necessary for initiating and supporting implementation
   - allocate resources necessary for accomplishing these tasks

4. **WHO** is responsible?
   - determine who are the stakeholders
   - discuss the roles of persons providing leadership to the implementation (e.g., planning committee)
   - clarify expectations of participants (i.e., teachers, principals, and district staff)

5. **WHEN** is the change to take place?
   - schedule professional development events
   - ensure ongoing assessment of implementation and feedback

There are different formats of plans used in districts across British Columbia (for one example, see Table 4). There are also various checklists that elaborate the above questions in more detail. In Table 5, for example, Fullan and Leithwood (1982) list nine major tasks to be addressed (sometimes simultaneously) at the planning stage of implementation.

Table 4
Implementation Plan

GOALS	STRATEGIES	RESPONSIBILITY	TIMEFRAME
What district goals will realistically support implementation this year?	What activities are appropriate to achieve the district goals?	Who is primarily responsible for planning and initiating these tasks?	In what timeframe should these actions be initiated and resources allocated?

Table 5
Implementation Tasks and Illustrative Strategies

Implementation Tasks	Illustrative Strategies
1. Clarify the need for, and goals of, implementation in relation to present practice; obtain/develop quality materials and define their essential components.	1. Establish with teachers the need for change; define essential components; compare present practice with desired change. Make an inventory; determine which materials are to be developed or acquired.
2. Clarify/obtain board and community support.	2. Ensure that the board endorses the change and is willing to provide resources for implementation.
3. Decide on priorities among multiple curricula to avoid overload.	3. Develop sequence guidelines (no teacher should have to work on more than one major change at a time).
4. Establish a timeline and information gathering system.	4. Establish a timeline (e.g., 2 years) during which tasks 1-9 are performed. This period should be characterized by continuous follow-up support and information gathering and sharing (to monitor and address problems and eventually to evaluate the change).
5. Establish district office staff approach to implementation.	5. Establish policy; develop inservice and follow-through procedures for district staff to ensure that they play a facilitation and technical assistance role.
6. Establish principal role and support for implementation.	6. Establish policy; develop inservice and follow-up for principals to ensure that they play a direct leadership/facilitation role.
7. Set up means of teacher involvement and district help for teachers.	7. Develop a specific, continuous inservice plan for teachers. Use fellow teachers and consultants to lead sessions.
8. Identify potentially useful resources external to the district.	8. Actively identify possible external resources (faculties of education, BCTF, the Ministry, etc.) and build use of them into an overall plan.
9. Establish a budget for implementation.	9. Establish budgetary requirements; seek resources at board, district, and/or school level for materials, professional development, etc.

Fullan and Leithwood, 1982:17)

District Approaches to Implementation

District administrators across British Columbia have devised and experimented with many approaches to planning and facilitating curriculum implementation. The nature and degree of a curriculum change, the size and organization of a district, and the individual needs of stakeholders are among the factors that affect the selection of an implementation approach. Eight examples of approaches are discussed here in general terms.

Regardless of the approaches taken, a district "advisory committee" or "steering committee" for curriculum implementation should be formed if one does not already exist. It could be organized, where appropriate, as a K-12 committee. Members of such a committee could include interested teachers or representatives from each school. These members would meet on a regular basis to plan and monitor the district's implementation activities, and to communicate information with school staffs.

1. District-wide orientation

A common method of introducing a new curriculum to a district is to have one or two district-wide orientation sessions for the relevant teachers and principals. The nature, timing, organization, and context of such sessions depends upon the complexity of the curriculum, the number of teachers affected, and the district's personnel and financial resources. However, most districts follow a pattern that includes a large group, general orientation session followed by a series of both district-wide and school-based inservice sessions spread over a year or two. These sessions deal with anticipated implementation problems and specific concerns expressed by teachers.

Whether orientation sessions are provided by Ministry or district personnel, or by both, the meetings address the kinds of issues and topics listed in Table 6.

Table 6
Planning for an Orientation Session

Issues and Topics to Address

WHAT?
- Purpose of the curriculum revision
- Differences between the new and the old curriculum
  - content
  - goals
  - teaching strategies
  - resources
  - student evaluation
- Implications of these differences for classroom practices

WHO?
- Clarification of roles
  - teacher
  - department head
  - principal
  - district staff
  - planning committee

HOW?
- Implementation plans (district and school levels)
- Resource allocations
- Inservice needs
- Delivery approaches

WHEN?
- Timeline
- Follow-up plans

2. District-wide Inservice

School-based inservice is a desirable and widely used form of professional development. This type of inservice allows school staffs to be in control of their own agenda and to deal with their site-specific concerns and needs when implementing a new curriculum. There are times, though, when district-wide inservice may also be relevant to understand issues and solve problems that are common across most schools.

Both school and district-based inservice sessions have been criticised by teachers, mainly because of problems with relevance and timing. One reason is that questions that the inservice is designed to address may be no longer of concern to most teachers. A survey conducted in British Columbia identified some generic questions that school personnel want to discuss during a series of inservice sessions related to any curriculum implementation. These questions are identified in Table 7 (Werner, 1981).

Table 7
School Staff's Expectations of Inservice

- **Why are we asked to change?**

  The initial purpose of inservice is to clarify the reasons for why we should change some aspect of our current classroom practice and curriculum. For example, why is this change thought to be desirable? Is the basis for the proposed change to be found in research findings, needs assessment data, evaluation reports, or political conditions?

- **What are we asked to implement?**

  The purpose of inservice is to clarify the scope and complexity of the curriculum, including its component parts, materials, and required resources.

- **What is really new?**

  The purpose of inservice is to clarify the magnitude of change that is involved. Compared to the old program or materials, there may be very little that is changed apart from packaging and format. Also, the degree of the change may be modest and less complex than imagined.

- **What aspects of current practice will be affected?**

  The purpose of inservice is to help clarify the *implications* of the new curriculum for the teacher and principal. For example, does the teacher need to acquire new knowledge or teaching approaches? Does the role of the teacher and/or student change? Are changes necessary in the organization of time, the classroom, or teacher planning?

- **How does the change affect other programs and subject areas?**

  The purpose of inservice is to help clarify concerns about how the change *articulates* with other programs, school priorities, and staff strengths.

Questions such as these cannot be dealt with in one inservice session. The content of such a session would represent overload for participants, and the questions may not all be relevant at the same time to participants. Instead, the last three questions could be dealt with in greater depth over a series of sessions. These questions guide teachers' understanding of what a curriculum may mean for their classrooms. If the questions are dealt with at the right time, teachers can then make informed choices about the benefits and costs of using the curriculum and in what ways.

There are a number of features of inservice that can facilitate implementation. Some of these features are listed below:

- Schedule inservice for both teachers and principals.
- Co-ordinate workshops to avoid overload for school personnel.
- Aim the inservice at where participants are in their implementation work.
- Focus the inservice directly on changes to be implemented.
- Include "hands on" workshops.
- Consider an ongoing series of sessions. Avoid the "one-shot" approach that provides too much information.
- Relate discussion of the curriculum to direct classroom application.
- Provide time for participants to share their concerns and experiences with the implementation.
- Include an evaluation form to provide direction for improvement of the next session.

3. "Trainer-of-trainers"

The "trainer-of-trainers" approach involves the identification of selected teachers and administrators who are given extensive training in how to inservice their colleagues. In turn, the trainees provide inservice to their own school staffs or across schools. Buchanan (1980b) listed several advantages of this approach. The approach

- fosters a multiplier effect in facilitating the change
- builds mutually supportive networks
- recognizes the expertise of people already in the district
- is personally rewarding and professionally beneficial to participants
- allows responsiveness to needs expressed by schools
- provides for personal interaction among a greater number of school personnel

- encourages two-way communication and input from those who are using the change.

The "trainer-of-trainers" approach can be used at several levels. For example, the Ministry uses the approach to train representatives from districts who then return to their districts to train others. At the district level, representative teachers or department heads are trained to inservice their respective staffs. This approach often breaks down at the second stage, where those who are trained are expected to train others. This may be due to a lack of planning and resources for follow up.

There are various examples of the trainer-of-trainers approach across the province. The implementation of the elementary fine arts curriculum in one large district incorporated the approach in the following way:

- Required changes were identified, resource needs determined, and budget established.
- District co-ordinator established a network of one fine arts representative for each school.
- General orientation session was held with school representatives.
- Implementation plan and timeline were developed with representatives.
- Representatives were provided with a series of inservice sessions on the following topics:
  - overview and discussion of the curriculum
  - how to provide orientation to staffs
  - activities and themes relevant for use in inservice sessions (e.g., seasonal themes)
  - organization of the program in the classroom
  - integration of the curriculum with other subject areas
  - how to do demonstration lessons.
- Representatives provided professional development activities to respective staffs.
- Ongoing monitoring of implementation was accomplished through meetings with school representatives.
- Student evaluation strategies were developed with representatives and inserviced by them.
- Plans were developed with representatives to assess the effectiveness of implementation.

4. Resource team

The resource team approach is similar to the trainer-of-trainers approach and has been used successfully in a number of districts. It differs from the preceding approach in that a select group of teachers is identified as a resource team for the district. The group of teachers receives extensive training in the new curriculum

and is available to inservice entire staffs at the elementary level, or an entire department at the secondary level. Release time is made available to the resource teachers so that they can conduct inservice sessions during school-based professional development days. A rotating system is set up so that none of these teachers is away from his or her class too often.

The resource team approach was planned by a large district in the context of the elementary mathematics curriculum. Major tasks included the following:

- Curriculum changes were clarified, and a budget established.
- Alternative materials were piloted and evaluated, and selections made.
- Resource team of teachers was selected from across the district and provisions were made for their release time.
- Resource team attended a summer institute, publishers' presentations, and special workshops on problem solving and the use of manipulatives.
- District orientation and implementation plans were developed with resource team.
- Orientation session was held for teachers.
- Principals attended a special inservice session on the new curriculum that dealt with the following questions:
  - What is different from the old program?
  - What materials are available, and how can they be used?
  - What issues are there in student evaluation?
  - What services are available from the resource team?
- Resource team provided inservice to staffs in the following ways:
  - series of sessions offered on use of manipulatives, problem-solving strategies, geometry, data analysis, etc.
  - sessions offered after school and during school-based staff development days.
- Plans were developed with resource team to assess the effectiveness of implementation.

5. Host schools

A district may organize schools to host a series of scheduled meetings on some aspect of the new curriculum. This approach enhances the involvement of teachers, raises their awareness of changes in the curriculum, and allows them to share experiences and expertise across schools. At these meetings, teachers in each host school make a presentation on an approach (e.g., form of classroom organization, teaching strategy, set of materials) used in their school to implement some part of the new curriculum. Time could also be provided in sessions for a discussion of ideas from the other schools. If teachers bring these ideas to the meeting in written form, copies could be distributed to others present at the meeting. In cases where resources permit, the district may arrange a half-day release time for each host school (or relevant department) to prepare for the after-school session.

Following is an outline of the host school approach used by a district for supporting the implementation of the junior science curriculum.

- Curriculum changes clarified and budget established.
- Orientation session held for teachers and department heads.
- Department heads met to plan implementation activities and timeline, and to clarify various resource needs.
- Working committees established to develop supplementary resource packages.
- Resource packages inserviced at a district-wide professional development day.
- Ongoing development of more resource packages, inservicing of teachers, and assessment of the implementation planned and organized through department heads.
- Host school approach introduced through department heads. Each school took a turn hosting meetings and preparing presentations on how to teach aspects of the new curriculum. Release time was arranged for preparation of these meetings.
- Plans developed with department heads to assess the effectiveness of implementation.

6. Team building

A school-based approach to supporting implementation is to organize teams of teachers in each school. A team may consist of all teachers at the same grade level in an elementary school or a department at the secondary school. Within each team, teachers "pair off" and meet on a daily basis to discuss plans for the day that focus on the new curriculum.

Each team is chaired by one teacher or, at the secondary level, likely by the department head. The chair of each team works closely with the school administration to help facilitate the tandem teaching. Meetings of each team are held weekly or bi-weekly to share ideas and to review difficulties that students may be having with the new concepts.

In order to free pairs of teachers from time to time for planning or resource development, several arrangements could be considered. Among these may be coverage by administration, double class instruction for some topics, use of student teachers, or instruction on research and study habits by the librarian.

7. Teacher networks

Personal contact and communication among teachers within the district and with teachers in other districts can be an important avenue for implementation support. Implementation plans should encourage both horizontal and vertical interaction among teachers and administrators. This can be enhanced through the establish-

ment of networks. For example, each school in a district could identify a contact person who would become a part of a network for the purpose of exchanging ideas and materials. At the secondary school, this contact role would likely be held by the department head, whereas at the elementary level, it may be a teacher with a particular interest in the role. The network could be co-ordinated at the district level.

Networks can be formal, with someone responsible for making sure that there is regular communication (e.g., a newsletter) among contact persons. Networks can also be informal by encouraging teachers with similar interests or in close proximity to share materials and occasionally observe one another. Whether formal or informal, any support group will only be maintained if there is an ongoing sharing of information.

One of the best examples of the use of networks at both the district and provincial levels is related to the "writing process," and much can be learned about successful networking from it. Teachers and schools interested in this particular innovation were given ongoing access to names of other teachers and schools within the district or other districts. Consequently, they could contact colleagues about information on specific projects, classroom materials, and solutions to difficulties. Any network, however, does require someone to initiate and maintain it.

8. Groups and clusters

In some cases, school staffs will be at different stages in the implementation of change. For example, if the scheduled revision in the Language Arts curriculum were to include writing as a process or a whole language approach to reading among the intended learning outcomes, some schools will be at different levels of readiness for the change. Some schools will have already institutionalized these approaches, whereas in other schools the concepts will be new. As a result, the needs for orientation, inservice, and materials may differ among schools.

One approach to district planning, in this case, would be to group or cluster schools with similar levels of preparedness. This could be done either within a district or across adjoining districts, if appropriate arrangements were made. Schools within these groupings would have similar needs for orientation, inservice, and materials. Planning could then be more relevant to the schools within each group, with resource allocations and inservice sessions tailored to meet those needs.

If schools within each group scheduled one or more school-based professional development days at the same time, district staff or other resource persons could offer inservice designed specifically for the members of each group. One of the outcomes could be the establishment of a network of schools with similar needs for further planning and articulation.

Summary

These eight approaches to supporting implementation at the district level are not comprehensive by any means. There are other approaches and variations used across the province. For example, an approach sometimes used is the designation of one or more "helping teachers," whose role is to provide leadership across the

district in relation to a particular curriculum implementation. Time is provided for these individuals to work with teachers or schools who have requested assistance. When planning implementation, it is worth contacting district administrators or school personnel in other districts to find out what they have tried and with what success.

Time is one of the major problems that arises when planning any approach to supporting implementation at the district level. Often, there is no time available during the day, or there may be few resources that can be used to free-up time. In such cases, incentives may need to be given to teachers to attend Saturday workshops, dinner meetings, or a one-week summer institute. Another option to gain time for school-based inservice may be to restructure the school day. For a limited period of time, the morning or the afternoon could be lengthened by fifteen minutes, or the noon hour shortened by fifteen minutes. Over the course of two weeks, this restructuring would provide two and a half hours for an afternoon inservice session at the school.

Resources

This handbook is general and does not provide the detail that you may require for planning the implementation of a specific curriculum within the context of your district. The following sources should be contacted for further information:

- Personnel at the Educational Program Implementation Branch may be able to put you in contact with other relevant people in the province, classroom materials developed in other districts, or appropriate research literature.
- Members of an appropriate PSA within the BCTF may know of school staffs who have expertise and are willing to share their experience with similar implementations.
- Personnel at the Curriculum Development Branch may be able to put you in contact with a committee member who worked on the new curriculum. This person may provide insights on the curriculum and may have suggestions about further resources.
- Selected teachers and administrators in the district may be able to serve as resource people on aspects of the new curriculum. They may have expertise gained through professional experiences, university graduate programs, or other professional development activities.
- Subject matter or implementation specialists at the universities may be able to provide advice or suggest appropriate research literature.

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